JVC Instructions

VIDEO CASSETTE RECORDER
HR-D700E

MANUEL D'INSTRUCTIONS:
MAGNETOSCOPE A CASSETTE
BEDIENUNGSANLEITUNG:
VIDEO-KASSETTEN-REKORDER
MANUAL DE INSTRUCCIONES:
GRABADOR DE VIDEO CASSETTE
GEBRUIKSAANWIJZING:
VIDEO-CASSETTERECORDER
BRUKSANVISNING:
VIDEOBANDSPELARE

digital VPV VIDEOTEXT PROGRAMMING READY

HQ

INDEX
VHS INDEX SEARCH SYSTEM

VHS PAL

SAFETY PRECAUTIONS

The rating plate and the safety caution are on the rear of the unit.

WARNING – DANGEROUS VOLTAGE INSIDE
WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE.

IMPORTANT (In the United Kingdom)
Mains Supply (240 V~, 50 Hz only)

IMPORTANT

Do not make any connection to the Larger Terminal coded E or Green. The wires in the mains lead are coloured in accordance with following code:

If these colours do not correspond with the terminal identifications of your plug, connect as follows:
Blue wire to terminal coded N (Neutral) or coloured Black.
Brown wire to terminal coded L (Live) or coloured Red.
If in doubt – consult a competent electrician.

FOR YOUR SAFETY (in Australia)
Install any external aerial to AS 1417.1

Omkopplaren OPERATE på denna apparat är sekundärt kopplad och skiljer inte apparaten från nätet i läge OPERATE OFF.

The OPERATE button does not completely shut off mains power from the unit, but switches operating current on and off.

BEMAERK: I stilling OFF er apparatet sadig forbundet med lysnettet Hvis det ønskes fuidstændig afbrudt skai netledningen trækkes ud.

This unit is produced to comply with Directive 82/499/EEC, CISPR Pub. 13 and Pub. 14 and Standard IEC 65.

CAUTION

- When you are not using the HR-D700E for a long period of time, it is recommended that you disconnect the power cord from the AC outlet.
- Dangerous voltage inside. Refer internal servicing to qualified service personnel. To prevent electric shock or fire hazard, remove the power cord from the AC outlet prior to connecting or disconnecting any signal lead or aerial.

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VHS PAL HQ

- Only cassettes marked "VHS" can be used with this video cassette recorder.
- HQ VHS is compatible with existing VHS equipment.

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FEATURES

High-quality pictures
- **HQ (High Quality) System technologies** with DE (Detail Enhancer), and WCL (20 % higher white clip level).
- Picture sharpness control.

Digital effects and digitally-enhanced special-effects playback
- **Digital Freeze** to freeze the action, with the soundtrack continuing unaffected.
- **Multi-Screen Digital Freeze** to display selected still pictures in the 9-frame Multi-Screen mode.
- **Digital Strobe** to change "frozen" images in sequence at 3 different speeds.
- **Multi-Screen Digital Strobe** to display still pictures on 9 sub-screens at 3 different speeds.
- **Picture-In-Picture** to display a TV broadcast programme in an inset window during tape playback, with Swap function to swtich pictures between the main screen and the window.
- **Digital Mosaic** for modern art expressions available in 2 different patterns.
- **Digital Solarization** for fascinating colour changes in 2 different tones.
- **Multi-Screen Intro Search** to sequentially display on 9 sub-screens a still picture from the beginning of each recorded programme identified by an index code.
- **Multi-Screen Channel Scan** to sequentially display on 9 sub-screens a still picture from each tuned-in channel.
- **Noiseless stills** and frame advance.
- **Slow-motion playback at 5 different speeds:** 1/30, 1/24, 1/18, 1/12 and 1/6 the normal speed.
- **Double-speed** forward playback.

Remote control features
- **Control of all digital functions.**
- **Independent timer programming with built-in LCD and 4 programme memories.**
- **10-Digit keypad** for timer programming, channel selection, Index Search and Go-To functions.
- **TV control** for power on/off, volume, channel and AV mode selection (designated TVs only).

Tuner features
- **PLL frequency synthesized wide-band cable tuner** with 48-channel storage capacity.
- **Pretuned to European television broadcast frequencies:** VHF, UHF and cable channels including those of **hyper band.**
- **Compatible with VPS (Video Programme System)** through use of an optionally available VPS adapter, and capable of **Teletext Programming** through use of an optional VPV adapter.
- Up/down channel scanning and **10-key random-access channel selection.**

Timer features
- **Remote programming by data transfer.**
- **1-year/8-event programmable timer.**
- Memory backup time of about 3 to 5 minutes.
- One-button instant timer recording.

Tape access features
- **Half-loading mechanism** for more convenient tape access features.
- **VHS Index Search System** which automatically places index codes at the beginning of any recording, with mark/erase facilities for manual marking of extra index codes during recording and playback, and manual erasing of unnecessary index codes during playback.
- Automatic location of up to 9 coded programmes by remote-specifying the number of index codes to be skipped. A specified code can be detected in the Shuttle Search, or the faster rewind and fast-forward modes for automatic playback.
- **Intro search** to play back the beginning of each indexed programme for about 5 seconds in fast-motion.
- **Realtime go-to function** for locating a point on the tape a specified time away from the beginning.
- **Realtime search function** for locating a point on the tape a specified time away from the current position in either direction.
- Counter memory function for returning to a designated point on the tape.
- Shuttle Search with lock function: with the button locked or held depressed for instant release, offers high-speed playback at 9 times normal speed.

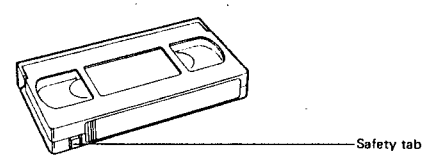
Automatic functions
- Auto-play function: insert a cassette (with safety tab removed), and playback will start automatically.
- Next-function memory: play, eject, timer standby and power-off will be automatically performed after rewind.
- Auto-power-on function.
- Power-off eject.
- Auto-rewind at tape end.
- Automatic backspace editing by Zero Frame Editing system for clean assemble edits.

Other value features
- **Realtime tape counter** showing tape time in hours, minutes and seconds by counting the recorded 25-Hz control signal pulses.
- **On-screen record-pause mode display** showing elapsed pause time.
- Electronic tracking controls.
- Comprehensive fluorescent display.

PRECAUTIONS

Handling and storage
- Avoid using the recorder under the following conditions:
  - extremely hot, cold or humid places,
  - dusty places,
  - near appliances generating strong magnetic fields,
  - places subject to vibrations, and
  - poorly ventilated places.
- Be careful of moisture condensation.
  Avoid using the recorder immediately after moving from a cold place to a warm place. The water vapour in warm air will condense on the still-cold video head drum and tape guides and may cause damage to the tape and the recorder.
- Handle the recorder carefully.
  - Do not block the ventilation openings.
  - Do not place anything heavy on the recorder.
  - Do not place anything which might spill and cause trouble on the top cover of the recorder.
  - Use in horizontal (flat) position only.
- In case of transportation,
  - Avoid violent shocks to the recorder during packing and transportation.
  - Before packing, be sure to remove the cassette from the recorder.

Video cassettes
- This recorder employs VHS-type cassettes only.
  E-240 for 4 hours, E-180 for 3 hours, E-120 for 2 hours, E-90 for 1 hour and 30 minutes, E-60 for 1 hour and E-30 for 30 minutes of recording.
- Video cassettes are equipped with a safety tab to prevent accidental erasure. When the tab is removed, recording cannot be performed. If you wish to record on a cassette whose tab has already been removed, use adhesive tape to block the hole.



- Avoid exposing the cassettes to direct sunlight. Keep them away from heaters.
- Avoid extreme humidity, violent vibrations or shocks, strong magnetic fields (near a motor, transformer or magnet) and dusty places.
- Place the cassettes in cassette cases and position vertically.

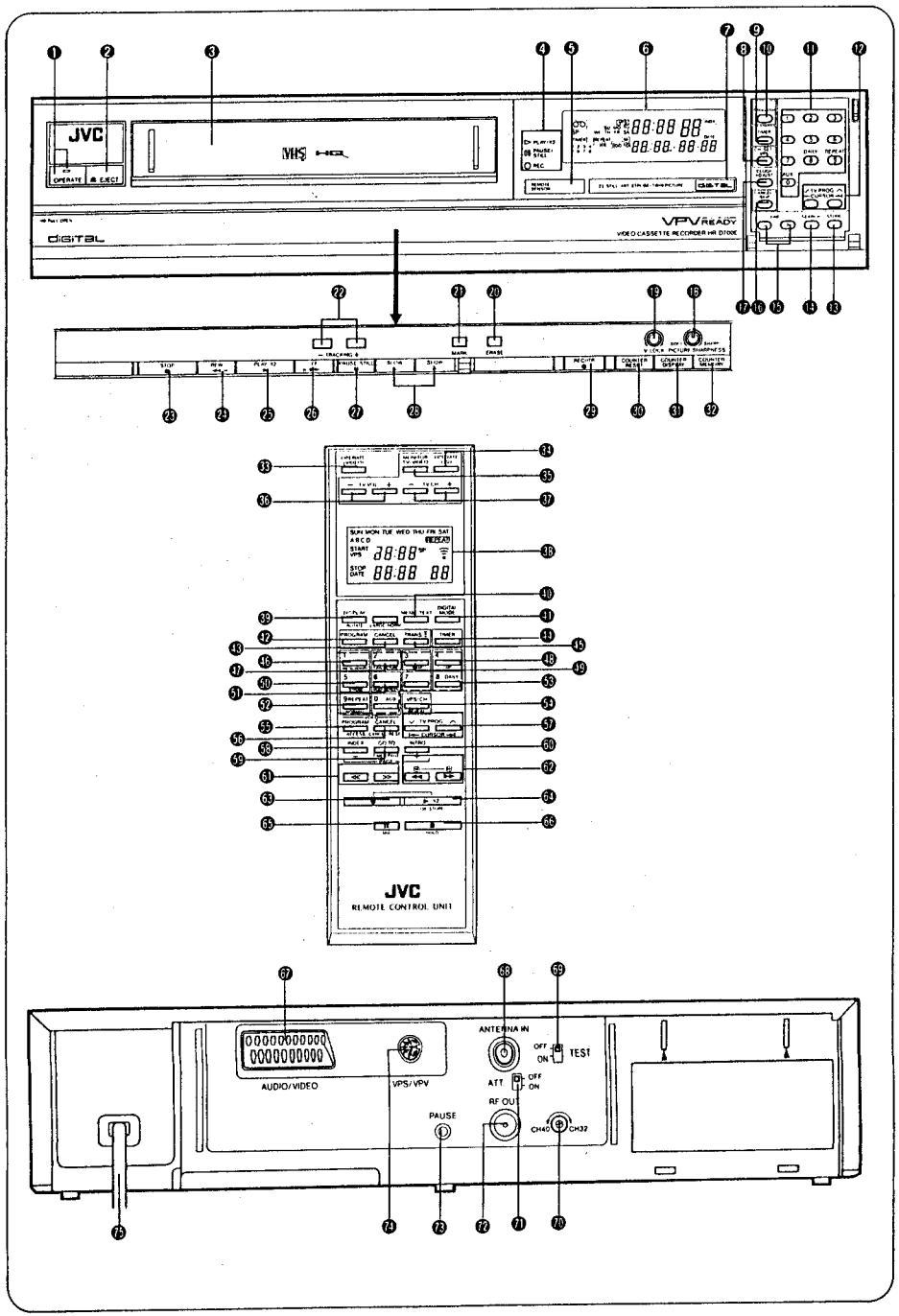
Moisture condensation
- If you pour a cold liquid into a glass, water vapour in the air will condense on the surface of the glass. This is called moisture condensation.
- Moisture condensation on the head drum, one of the most crucial parts of the video recorder, will cause damage to the tape.
- Moisture condensation is apt to occur under the following conditions:
  - when the recorder is moved from a cold place to a warm place, and
  - under extremely humid conditions.
- In conditions where moisture condensation may occur, keep the power cord plugged in an AC outlet and the OPERATE switch set to ON; this would help prevent condensation from occurring. When condensation has occurred, it will not evaporate quickly once the power is switched on. Wait a few hours for the recorder to become dry.

Operation
- When a cassette is loaded, the power is switched on automatically.
- The cassette can be unloaded even when the power is off. Pressing the EJECT button turns the power on and, after ejection of the cassette, shuts it off automatically in this case.
- As long as TIMER button is engaged with the TIMER indicator lit, the OPERATE and EJECT buttons have no effect and unloading of a cassette is not possible. If a cassette has not yet been inserted, simply insert a cassette; the power will be switched on to load the cassette properly and, after completion of automatic loading, the Timer Recording Standby mode will be engaged with power off.

Remote control unit
- Avoid violent shocks, especially take care not to drop the unit.
- Take care not to allow liquid to spill into the unit.
- Do not place heavy objects on the unit.
- Avoid leaving the unit in places subject to direct sunlight or extremely high temperatures.

WARNING
1. This recorder can also receive SECAM colour television signals for recording and playback.
2. Recordings made of SECAM television signals produce monochrome pictures if played back on another video recorder of SECAM standard, or do not produce normal colour pictures if played back on another video recorder of PAL standard.
3. SECAM prerecorded cassettes or recordings made with a SECAM video recorder produce monochrome pictures when played back with this recorder.
4. This recorder cannot be used in France. Use a SECAM recorder to record French SECAM signals in France.

IMPORTANT: It is permissible to record television programmes only in the event that third party copyrights and other rights are not violated.



CONTROLS, INDICATORS AND CONNECTORS [Refer to the diagrams on the front foldout page.]

Front Panel

❶ **OPERATE button with LED indicator**
Press to apply operating power to the recorder. The LED inidicator will light. Loading a cassette also turns the power on.

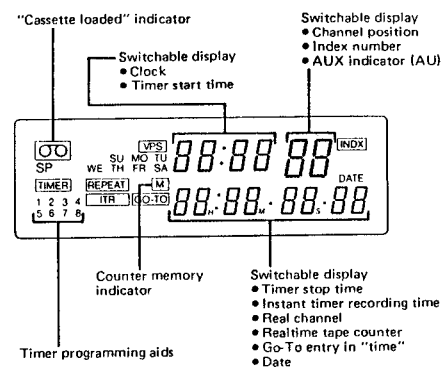
❷ **Cassette EJECT button**

❸ **Cassette loading slot**
Insert a VHS cassette. The door will close and the "cassette loaded" indicator will appear on the FDP (fluorescent display panel).

❹ **Mode indicators**
PLAY/X2: Lights in the Play or Double-Speed Play mode. Also lights in the Record mode together with the REC indicator.
PAUSE/STILL: Lights in the Still or Record-Pause mode.
REC: Lights in the Record mode together with the PLAY/X2 indicator.

❺ **Infrared beam receiving window (REMOTE SENSOR)**

❻ **Fluorescent display panel (FDP)**



❼ **DIGITAL indicator**
Lights when the Digital mode is engaged by pressing the DIGITAL MODE button ㊶ on the remote control.

❽ **CH SET/VPS button**
A dual-function switch. Serves as a VPS command enter button in timer programming (See page 22).
Normally functions to engage the Tuner Preset mode (See page 7).

❾ **TIMER button**
Press to engage the Timer Standby mode.

❿ **PROGRAM button**
Press to programme the timer.

⓫ **Multi-purpose numeric keys**
Channel selection: See page 7.
Timer programming: See page 20.
Index search: See page 13.
Realtime Go-To: See page 14.

⓬ **˄V PROG./CURSOR ∨/∧ buttons**
Press either button to scan to a desired channel.

⓭ **STORE button**
Press to store the tuned-in channel in the Tuner Preset mode; press to enter the repeat command in timer programming.

⓮ **SEARCH button**
Press to initiate real channel automatic scan tuning. (See page 8).

⓯ **FINE (–, +) buttons**
To fine-tune in to a certain station by shifting the frequency in both directions. (See page 8).

⓰ **CANCEL/SKIP button**
Press to cancel the programmed data in timer programming; press to skip unnecessary channels in tuner presetting.

⓱ **CLOCK AJUST button**
Press to adjust the clock.

⓲ **PICTURE SHARPNESS control**
Turn clockwise to make the picture sharper; counter-clockwise to give the picture a softer tone. Effective only for playback pictures. (No effect for recording.)

⓳ **V. LOCK control**
When operating in the Still, Freeze or Strobe mode, turn this control to eliminate vertical vibration of the picture, if observed.

⓴ **ERASE button**
Press during playback to erase an index code. (See page 13.)

㉑ **MARK button**
Press during playback or recording to put an index code on the tape. (See page 13.)

㉒ **TRACKING –/+ buttons**
Press either button to minimise noise bars, if observed, during playback.

㉓ **STOP button**
Press to stop the tape.

㉔ **REW/SHUTTLE SEARCH button**
Press while in the Stop mode to rewind the tape; press while in the Play mode for programme search in the reverse direction.

㉕ **PLAY/X2 button**
Press once to play back a tape; press again for double-speed playback. Also press this button to cancel the Pause/Still, Slow or Shuttle Search mode.

㉖ **FF/SHUTTLE SEARCH button**
Press while in the Stop mode to fast-forward the tape; press while in the Play mode for programme search in the forward direction.

㉗ **PAUSE/STILL button**
Press to stop the tape temporarily to avoid recording of unwanted material or to view a still picture.

㉘ **SLOW –/+ buttons**
Press in the Play or Still mode to engage the Slow-Motion mode. To increase the speed, press "+" button, to decrease the speed, press "–" button.

㉙ **REC/ITR button**
Press once to start recording. Pressing it again engages the Instant Timer Recording mode. (See page 12.)

㉚ **COUNTER RESET button**
Press to reset the realtime counter reading to "0:00:00".

⑪ **COUNTER DISPLAY button**
Press to change the display from the Timer Programming mode to the Clock mode.

⑫ **COUNTER MEMORY button**
Press to engage the Counter Memory mode; [M] will appear on the FDP and the tape will stop automatically at the counter reading of "0:00:00" when fast-forwarding or rewinding the tape.

Remote Control Unit

㉘ **VIDEO OPERATE button**
Press to turn the recorder power on or off.

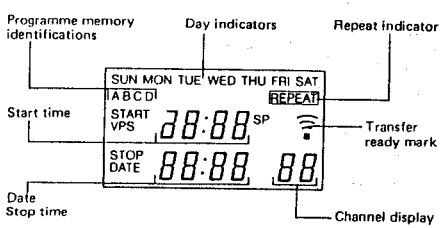
㉙ **TV OPERATE button**
Press to turn the TV power on or off. (Designated TV models only.)

㉚ **MONITOR TV/VIDEO button**
Press to select the TV's operating mode: TV for viewing broadcast programmes or tape programmes via RF OUT connection, and VIDEO for viewing programmes via AV connection.

㉛ **TV VOL. -/+ buttons**
Press either button to adjust the TV's sound volume.

㉜ **TV CH -/+ buttons**
Press to select a desired channel of the TV receiver.

㉝ **LCD (Liquid Crystal Display) panel**
Refer to this panel when programming the remote control's built-in timer memory.



㉞ **DISPLAY button**
Press to change the recorder's FDP display from the Timer Programming mode to the Clock mode.

㉟ **MENU/TEXT button**
Refer to page 23.

㊱ **DIGITAL MODE button**
Press to activate the digital circuitry. For all digital effects, this button must be pressed first. Press again to cancel the Digital mode.

㊲ **PROGRAM button**
Press to programme the remote control's timer memory.

㊳ **CANCEL button**
Press to cancel the programmed date in the remote control's timer memory.

㊴ **TIMER button**
Press to engage the Timer Standby mode.

㊵ **TRANS button**
Press to transfer the data held in the remote control's timer memory to the recorder.

㊶ **DIGITAL MEMORY button**
Press for Digital Freeze and Strobe. (See pages 16 and 17.)

㊷ **TWIN PICTURE button**
During tape playback, press to display a TV broadcast programme in an inset window (Picture-in-Picture mode). Additional pressing of this button shifts the position of the window. (See page 18.)

㊸ **ART button**
Press to select the desired digital art effects; two different mosaic patterns and two different solarization effects are available in sequence. (See page 18.)

㊹ **SWAP button**
While in the Picture-in-Picture mode, press to switch the pictures between the main screen and window.

㊺ **STROBE button**
Press to select the desired strobe speed from among 3 speeds in the Strobe or Multi-Screen Strobe mode. (See page 17.)

㊻ **MULTI SCREEN button**
Press to select the split-screen mode: the 9-Frame Multi-Screen mode will be engaged.

㊼ **NORMAL button**
Press to clear the digital effects while remaining in the Digital mode. Press this button first when changing from one digital effect to another.

㊽ **Multi-purpose numeric keys**
Among these numeric keys, "1" through "6" and "9" also serve as digital function keys as described above, and "0" serves as an AUX mode select button.

㊾ **VPS/CH button**

㊿ **VIDEO PROGRAM button**
Press to call up the recorder's timer memory.

(51) **VIDEO CANCEL button**
Press to cancel the programmed data held in the recorder's timer memory.

(52) **TV PROG./CURSOR (∨ / ∧) buttons**
Press either button to scan to a desired channel. These buttons can also be used as cursor keys when programming with numeric keys.

(53) **INDEX button**
Press to engage the Index Search mode. (See page 13.)

(54) **GO-TO button**
Press to engage the Realtime Go-To or Realtime Search mode. (See page 14.)

(55) **INTRO button**
Press to engage the Intro Search mode. (See pages 15 and 19.)

(56) **Slow -/+ buttons (≪ / ≫)**

(57) **Rewind/Fast-Forward buttons (◄◄ / ►►)**

(58) **Record button (●)**
Press this button together with the ►/X2 button to start recording.

(59) **► /X2 button**

(60) **Pause/Still button (❚❚)**

(61) **Stop button (■)**

Note:
Several buttons on the remote control unit will have additional functions (as suggested by additional labels) when the optional VU-V120E VPV adapter or VU-V100E VPS/VPV adapter is connected. For those functions refer to the instruction manual of the VPV adapter.

Rear Panel

(62) **AUDIO/VIDEO socket**
A 21-pin standardised audio/video input/output socket for the connection to a TV or a 2nd video recorder equipped with the same type of socket. The input from this socket can be recorded in the AUX mode engaged by obtaining "AU" in the channel display.

(63) **Aerial input connector (ANTENNA IN)**
Connect an aerial to this connector.

(64) **TEST signal switch**
Set to ON when tuning your TV receiver for the video channel. A test signal in the form of two vertical white bars will be available.

(65) **RF converter frequency adjustment screw (CH40 – CH32)**
(See below.)

(66) **Attenuator switch (ATT.)**
Set to OFF to receive broadcasts from distant stations. Set to ON to receive broadcasts of high field strength.

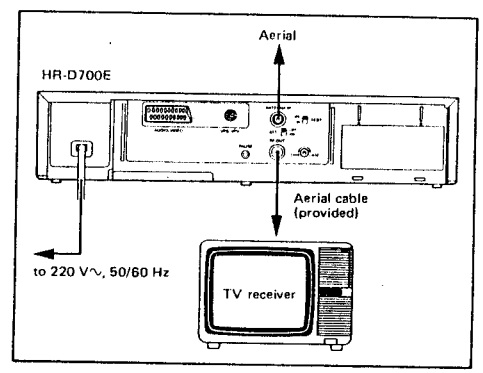
(67) **RF OUT connector**
Connect to the aerial terminal of a TV receiver through the aerial cable (provided).

(68) **Remote PAUSE terminal**
When using a JVC video camera, connect the remote control cable of the camera adapter to this terminal for the purpose of controlling the starting and stopping of the tape with the camera's start/stop switch. When used with a JVC VideoMovie equipped with the Master Edit Control system, this terminal makes quality editing simple.

(69) **VPV connector**
Connect the optional VU-V110E VPS adapter; connect the VU-V120E VPV adapter or VU-V100E VPS/VPV adapter for decoding teletext programmes and for teletext timer programming. See page 23.

(70) **Power cord.**

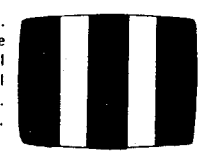
CONNECTIONS



1 Remove the aerial cable from the TV receiver and reconnect it to the recorder's ANTENNA IN connector (63). The recorder is then ready to record off-air programmes.
2 Connect the recorder's RF OUT connector (67) to the TV receiver's aerial terminal using the provided aerial cable. The TV receiver is then ready to receive broadcast programmes as well as accommodate video cassette playback.

VIDEO CHANNEL SETTING

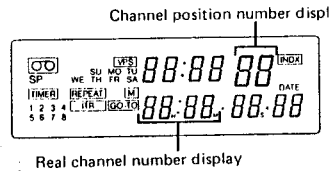
1 Press the OPERATE button (1) to turn the power on. Turn on the TV receiver.
2 Set the TEST switch (64) to ON.
3 Adjust your TV receiver in the vicinity of UHF channel 36 until you bring in the two white signal bars on the screen as illustrated. This is your VIDEO CHANNEL.
4 Reset the TEST switch to OFF.



Notes:
- If some interference noise is seen on the screen because of broadcasts on neighbouring channels or if your preset broadcasts should be affected in picture quality, it is necessary to shift the RF converter output frequency from that of channel 36. Consult your JVC dealer for making this adjustment.
- Video channel setting is also possible using a prerecorded VHS video cassette. Play back the tape and tune the TV receiver to obtain clear pictures and sound while monitoring the playback picture on the TV screen.
- If your TV receiver is not provided with an AFC circuit, perform fine tuning of the TV receiver when you are actually viewing video cassettes.

OPERATING THE BUILT-IN TUNER

The HR-D700E incorporates an advanced frequency synthesized tuner which is pretuned to 112 channels to cover VHF, UHF and CATV broadcasts. Channel indication is given in two different ways: real channel numbers and channel position numbers. Real channel number indication is available by pressing the CH SET/VPS button ❽ or during search by pressing the SEARCH button ⓬ ,while channel position number indication is always available in the channel display.



Correspondence between 112 pretuned TV stations and the HR-D700E's real channel indications

DISPLAY	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20
Ch	–	E2	E3	E4	E5	E6	E7	E8	E9	E10	E11	E12	A	B	C	D	E	F	G	H
CC	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	S14	S15	S16	S17	S18	S19	S20
	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	U1	U2	U3	U4	U5	U6	U7	U8	U9	U10
	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99
DISPLAY	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Ch	E21	E22	E23	E24	E25	E26	E27	E28	E29	E30	E31	E32	E33	E34	E35	E36	E37	E38	E39	E40
CC	S21	S22	S23	S24	S25	S26	S27	S28	S29	S30	S31	S32	S33	S34	S35	S36	S37	S38	S39	S40
DISPLAY	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Ch	E41	E42	E43	E44	E45	E46	E47	E48	E49	E50	E51	E52	E53	E54	E55	E56	E57	E58	E59	E60
CC	S41	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
DISPLAY	61	62	63	64	65	66	67	68	69			75	76	77						
Ch	E61	E62	E63	E64	E65	E66	E67	E68	E69			–	–	–						
CC	–	–	–	–	–	–	–	–	–			X	Y	Z						

Stored channels

A total of 112 channels are receivable. Of them, up to 48 can be stored for easy channel selection. Prior to shipment, some channels are stored.

It is possible to store more channels or skip some channels if there are no broadcasts on those channels in your area. It is possible to change the stored channels to correspond to your preferred channel allocation. Skipped channels can be restored whenever necessary.

- Channel memories are permanent; the programmed channel allocation will not be erased even if the recorder is unplugged from the AC outlet.

Channel selection

To select a channel for recording, normally use the TV PROG. buttons ⓬ ⓱ or 10 numeric keys ⓫ ⓭ . You can choose any channel from among the stored ones by calling up the corresponding channel position number.

- Use the TV PROG. "∨" button to scan to a channel in the direction of decreasing numbers; the TV PROG. "∧" button, in the direction of increasing numbers.
- When using the 10 numeric keys, pay attention to the following: To set a one-digit number, first key in 0. To key in a two-digit number, enter numbers in sequence. The number entered first will be shifted to the tens place. If you enter an invalid number (larger than 48), the channel display will return to the previous figure after 2 seconds.

If you want to select a channel other than those stored, engage the Real Channel mode and call up a channel, while referring to the real channel number display.

With recorder's controls:

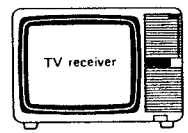
- Press the CH SET/VPS button ❽ to engage the Real Channel mode and call up a channel by using the 10 numeric keys. Or simply press the SEARCH button ⓬

With remote control:

- Press the CH SET/VPS button ㉔ to engage the Real Channel mode and call up a channel by using the 10 numeric keys.

Storing channels

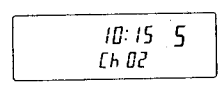
Turn the TV receiver to ON and adjust it to your video channel.



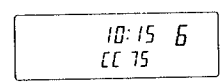
A. Automatic setting

1 Turn the power on.
- The display will change from the Date mode to the Counter mode.

2 Press the SEARCH button ⓬ .
- The display will change to the Real Channel mode and automatic scanning will take place for "Ch" channels, then for "CC" channels.
- Reverse search will be engaged if the SEARCH button is kept depressed.

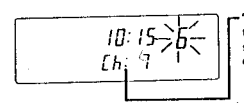


VHF channel 2 is stored for channel position 5.



Cable channel 75 is stored for channel position 6.

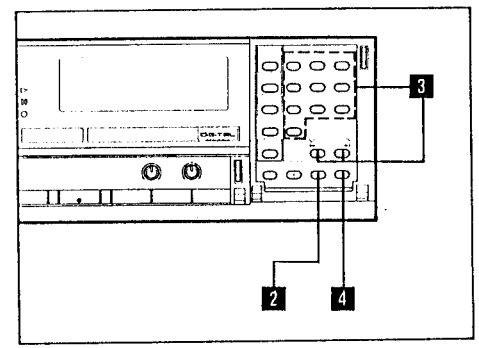
- When a broadcast is detected, scanning stops automatically and the displayed channel position number will blink.



"Colon" will appear to indicate that this real channel is not stored for the indicated channel position.

3 Select a channel position into which you wish to store that station by using the numeric keys ⓫ or the TV PROG. buttons ⓬ while the channel position number is blinking.

4 After confirming the real channel number and channel position number, press the STORE button ⓭ until the channel position number stops blinking.
- "Colon" will disappear and the selected station has been stored.



B. Manual Setting from remote control unit

(1) Press the CH SET/VPS button.
- The display will change to the Real channel mode.

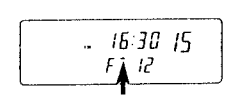
(2) Press the CH SET/VPS button until the real channel number starts blinking.
- Pressing the CH SET/VPS button will alternate the real channel mode between Ch and CC.
- Blinking will stop in 10 seconds.

(3) Enter the number of a real channel to be preset.
- The channel position number will start blinking.

(4) Select a channel position into which the selected real channel is to be stored, using the 10-digit keypad.
- Always key in a two-digit number ("05" for channel position 5 for example) and depress the numeric key for the second digit continuously until blinking stops. This enables the entered number to be stored.
- The display will return to the clock mode by simply keying in the channel number to be viewed.

• Fine Tuning

For fine tuning, use the FINE "+" or "–" button in step 3 (both in automatic and manual setting) "+" to fine-tune in the direction of increasing frequencies, and "–" to fine-tune in the direction of decreasing frequencies.



Skipping the stored channels

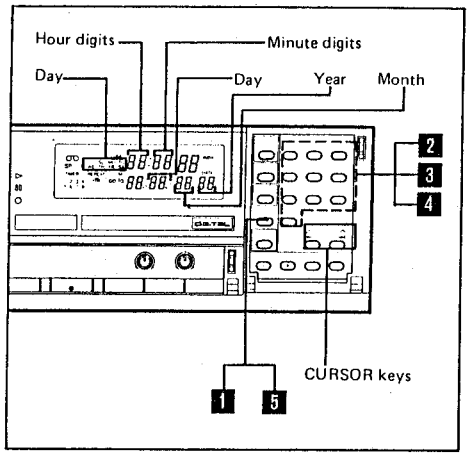
1. Call up the channel position number that you wish to skip by using the TV PROG. buttons or 10 numeric keys.
2. Press the CH SET/VPS button.
3. Press the CANCEL/SKIP button ⓰ .
   - "Colon" will appear to indicate that the displayed real channel is not stored.
   - The skipped channel position number will not appear on the channel display during up/down scan tuning.

Note:

If no command is given after each step of the setting operation, the Real Channel mode will be automatically cancelled in 10 seconds.

CLOCK SETTING

Plug the HR-D700E into an AC outlet. The display shows a blinking 0:00.



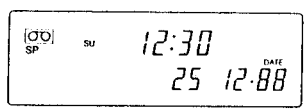
Power failure indicator
The blinking 0:00 (initial condition of the display) is also a power failure indicator, showing that there has been a power failure exceeding 10 seconds. Re-adjusting the time restores the normal condition of the clock display.

1 Press CLOCK ADJUST ⓱ .
The display will change to the Clock Set mode with the hour indication blinking.
2 Set the hour and minute in that order.
- The blinking position is ready for entry.
- To set a one-digit number, first press "0", then press the numeric key for 1 to 9.
- Zero will not be displayed in the tens place of the hour indication unless the cursor is moved back to the hour digits.
- For a two-digit number, simply press the corresponding numeric keys in the right order.
- In hour setting, numbers larger than 23 will be rejected.
- In minute setting, numbers larger than 59 will be rejected.

3 Set the day and month in that order.
- The setting method is the same as for time setting.
- In day setting, invalid numbers such as 32 of January or 30 of February will be rejected.
- 29 or February will be accepted only during leap years.
- In month setting, numbers larger than 12 will be rejected.

4 Set the year.
- Key in only the last two digits of the year.

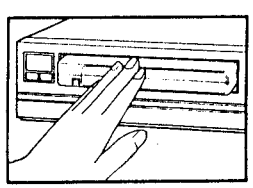
5 Press CLOCK ADJUST.
- Press it at the exact instant of the time signal, and the clock will be set accurately to the present time.



Notes:
- If you press a wrong numeric key, you can return to the previous position using the CURSOR "⇤" key.
- Once all necessary data have been entered, you can reach any position for correction using the CURSOR "⇤" and "⇥" keys.
- Clock setting is not possible if the TIMER button is engaged with the TIMER indicator lit. First check to see that the TIMER indicator is off.

LOADING AND UNLOADING A CASSETTE

Loading
Insert a cassette as illustrated. Be sure to insert it firmly into the slot; otherwise, it will be automatically ejected.



- The automatic loading mechanism will operate only when the cassette is inserted correctly.
- With a cassette inserted, the "cassette loaded" indicator will appear on the FDP.

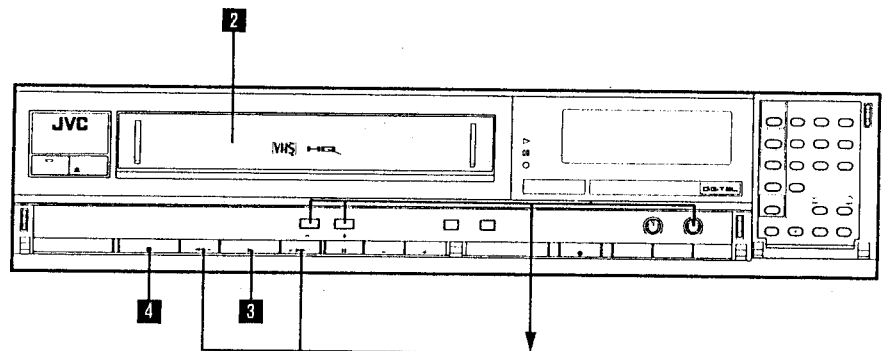
Unloading
Press the EJECT button ❷ .

CAUTION
- If unloading of the cassette is not possible, check to see whether the TIMER indicator is lit. If so, press the TIMER button so the TIMER indicator extinguishes.
- Do not attempt to pull out the cassette once automatic loading has started.
- Do not insert fingers or any foreign object beyond the door of the cassette loading slot, as this could lead to injury or damage to the mechanism. Show special caution with children.

PLAYING BACK A VIDEO CASSETTE

AUTO POWER-ON AND AUTO PLAY SYSTEM
- The cassette can be loaded even when the power has not been turned on. Inserting a cassette into the loading slot turns the power on automatically.
- Inserting a cassette, with its safety tab removed, turns the recorder on and playback of the cassette begins automatically.

POWER-OFF EJECT SYSTEM
- The cassette can be unloaded even after the power has been turned off. Pressing the EJECT button turns the power on automatically and, after ejection of the cassette, shuts it off automatically.



1 Turn the TV receiver on and adjust it to your video channel.
2 Load a pre-recorded cassette.
- Power will be switched on automatically.
- When the cassette loaded has no safety tab, playback will start automatically.

3 Press PLAY/X2 ㉕ .
4 Press STOP ㉓ at the end of the programme.
- The tape will be rewound automatically when its end is reached and the recorder will enter the Stop mode.

Note:
Only SP (Standard Play) recordings can be played back.

Picture Sharpness Adjustment
Images on the screen can be adjusted to a preferred softer or sharper definition by turning the PICTURE SHARPNESS control ⓲ in the corresponding direction.

Tracking Adjustment
Noise bars may appear on the screen if you play back a tape which was recorded using another recorder. For correction, press either TRACKING button ㉗ . Tracking will be reset to the preset standard each time the cassette is ejected.

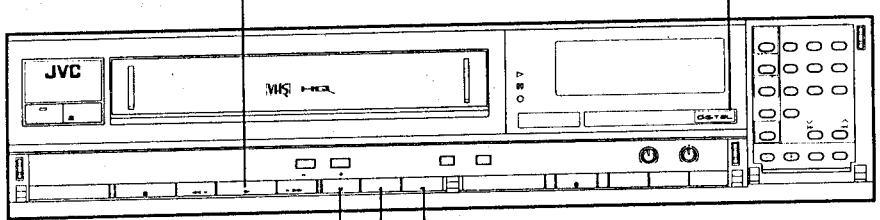
SHUTTLE SEARCH
Shuttle Search allows high-speed playback at 9 times normal speed in either direction.
1. Press either REW or FF Shuttle Search ㉔ or ㉖ during playback.
2. To cancel the Search mode, press PLAY/X2.
   - For briefer scanning, keep the SHUTTLE SEARCH button pressed for more than 2 seconds; when you release the button, the Search mode will be cancelled.

SPECIAL-EFFECTS PLAYBACK

When one of the following modes is engaged, the digital circuitry is automatically activated to help compensate for picture quality deterioration. Therefore, stills, slow-motion and double-speed pictures are all cleaner than before.

DOUBLE-SPEED PLAYBACK
- Press PLAY/X2 ㉕ while in the Play mode; double-speed playback will be engaged.
- To resume normal playback, press the same button again.
- The "DIGITAL" indicator will remain lit while in the Double-speed mode.

DIGITAL indicator



STILL PICTURE
1. Press PAUSE/STILL ㉗ during playback.
2. To advance the still picture, press PAUSE/STILL a number of times.
- The "DIGITAL" indicator will remain lit while in the Still mode.

3. To cancel the Still mode, press PLAY/X2.

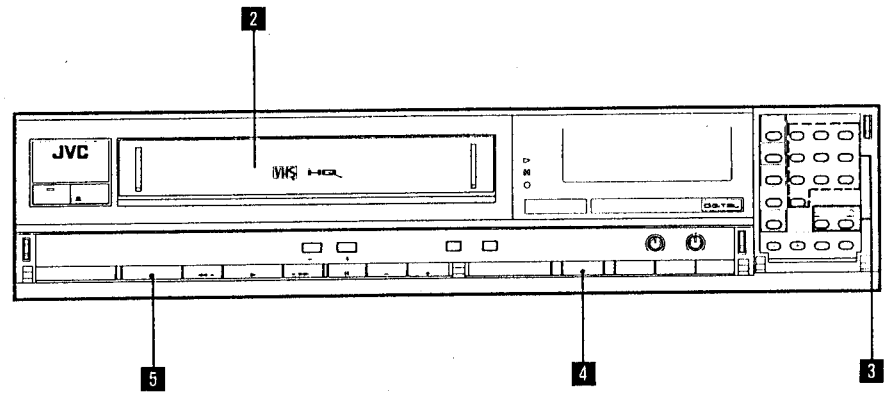
Notes:
- When the Still mode continues for longer than about 5 minutes, the Stop mode will be entered automatically.
- With some televisions, the still picture may be unstable. This is not due to any defect of the unit.

SLOW-MOTION PLAYBACK
- Press the "–" button while in the Play mode, slow-motion playback at 1/30 normal speed will start.
- Press the "+" button while in the Play mode; slow-motion playback at 1/6 normal speed will start.
- Each time the "–" button is pressed, the tape speed becomes slower.
- Each time the "+" button is pressed, the tape speed becomes faster.
- To return to the normal Play mode, press the PLAY/X2 button.

SLOW + →
SLOW – 1/30 1/24 1/18 1/12 1/6 SLOW +
← SLOW –

- The "DIGITAL" indicator will remain lit while in the slow-motion mode.

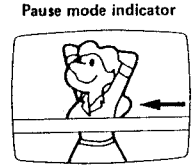
RECORDING TV PROGRAMMES



1 Turn the TV receiver on and adjust it to your video channel.
2 Load a cassette (with safety tab in place).
- Power will be switched on automatically.

3 Press either TV PROG. ⑰ or the numeric keys ⑪ to select the channel you wish to record.
4 Press REC/ITR ㉓ to start recording.
- Be careful to press REC/ITR only once, or Instant Timer Recording will begin.
- Press the record (●) and the play (► /X2) buttons simultaneously when using the remote control unit.
- If there is part of the programme you don't want to record, press PAUSE/STILL ㉗ . A white horizontal bar will appear on the screen, which reduces in size in 4 steps as time elapses. When the last quarter starts blinking and disappears, the Stop mode will be entered automatically. The pause duration is possible for about 5 minutes.

Pause mode indicator



- To continue recording from the Pause mode, press PLAY/X2 while the white bar is on-screen.

5 Press STOP ㉘ at the end of the programme.
- When the end of the tape is reached during recording, the tape is automatically rewound and stops.

Note:
- The selected channel cannot be altered during recording. If you wish to change the channel, first engage the Pause mode and then select a different channel.

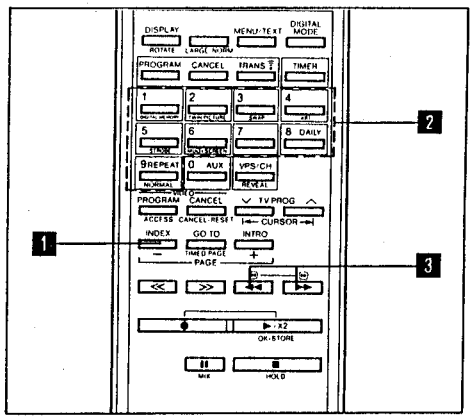
INSTANT RECORDING
If you wish for recording to stop automatically after a certain period of time, use this Instant Timer Recording mode.
1. Press REC/ITR during recording (or twice if in the Stop mode).
   - Recording will begin and the FDP shows "ITR 0:30", indicating that recording will automatically stop and power will switch off after 30 minutes.
2. Adjust the switch-off time, if necessary.
   - Press REC/ITR to increase the time in 30-minute increments (possible up to 4 hours).
   - Use the numeric keys to set to a more precise time when required (possible up to 4 hours 59 minutes). Always key in a full number including hours and minutes. For "0:35", key in zero first. After setting the time, press REC/ITR immediately.

RECORDING ONE PROGRAMME WHILE WATCHING ANOTHER
A programme not being viewed can be recorded while you enjoy another programme.
- Select the channel you wish to record with the recorder's channel select buttons.
- Select the channel you wish to view with the TV receiver's channel selector.

INDEX SEARCH FUNCTION

The Index Search function gives you automatic access to locations on the tape where index codes are recorded. Index codes are recorded automatically at the beginning of recordings which are started from the Stop or Timer Standby mode or recorded manually at any other position during recording or playback. Unnecessary codes can be erased manually during playback. With the HR-D700E, you can access any one of up to 9 of these indexed segments in either the forward or reverse direction.

Using the Index Search function



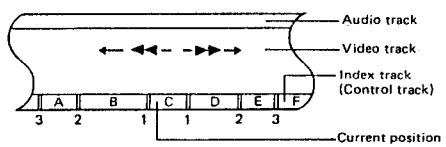
1 Press INDEX ㉚ while in the Play or Stop mode.
- The channel display of the FDP will change to the Index Search mode and the "INDX" indicator will light.

2 Specify the index number using one of the numeric keys ㉝ (1 – 9) within 10 seconds.
- The specified number will appear in the FDP.

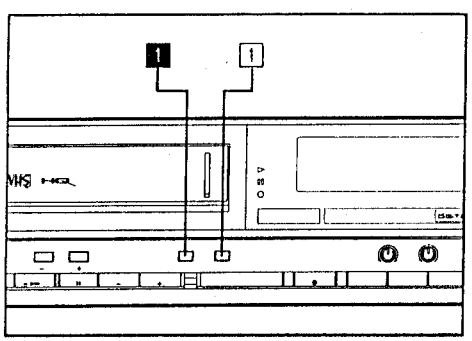
3 Press either ◀◀ or ▶▶ ㉗ .
- The tape will move and the index numbers count down to 0, where normal playback will start.
- If the INDEX button was pressed in the Play mode, the screen will show search pictures; if the button was pressed in the Stop mode, then the index codes are detected in the much faster Rewind or Fast-Forward mode.

Notes:
- To cancel the Index Search mode before completion, press ▶/X2 ㉘ or ■ ㉖ .
- If the end of the tape is reached while still in the Index Search mode, the mode is cancelled and the tape rewound.

Tips for specifying the index number



- "1" + ▶▶ moves playback to the beginning of segment D.
- "1" + ◀◀ moves playback to the beginning of segment C.
- "2" + ◀◀ moves playback to the beginning of segment B.
- If no number is entered, a value of "1" is assumed.



Marking extra index codes

1 Press MARK ㉑ while in the Record or Play mode.
- An index code will be recorded on the tape.
- The self-illuminating MARK button will blink while the index code is being recorded.

Erasing index codes

1 Press ERASE ㉑ while in the Play mode.
- First the Shuttle Search mode will be engaged and, when an index code is detected, it will be erased automatically. Then the Erase mode will be cancelled and playback resumes.
- The self-illuminating ERASE button remains lit during the searching process and blinks while the code is being erased.

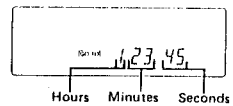
Notes:
- Index codes cannot be added or erased on a tape with its safety tab removed.
- While the index code is being searched for in the Erase mode, random noise appears on the screen.
- Audio is muted in the Mark or Erase mode.

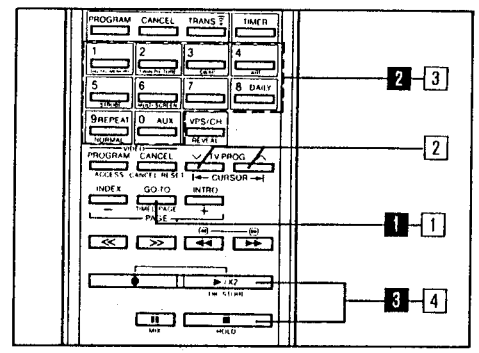
REALTIME TAPE COUNTER

Unlike usual tape counters which show tape locations in numbers, this realtime tape counter shows tape time precisely in hours, minutes and seconds in all modes (Record, Play, Rewind, Fast Forward).

Time Go-To function

The time Go-To function gives you direct access to any point on the tape by simply specifying the time from the beginning of the tape.





1 Press GO-TO ㉙ while in the Play, Stop or Still mode.
- The counter will change to the Go-To mode.

2 Specify the time (from the beginning of the tape) to the point to be located, by using the numeric keys ㉝ .

3 Press ▶/X2 ㉘ or ■ ㉖ .
- Always key in a full number.
- Depending on the situation, search will take place either in the Shuttle Search mode or in the Rewind or Fast Forward mode which is much faster than the Shuttle Search mode. After the specified point is reached, playback starts automatically or the tape stops automatically depending on the command.

Pressing ▶/X2 from Play or Still mode:	Shuttle Search – Automatic start of playback
Pressing ▶/X2 from Stop mode:	◀◀ or ▶▶ – Automatic start of playback
Pressing ■ from Play, Still or Stop mode:	◀◀ or ▶▶ – Automatic stop stop

- If the recorder did not detect the leader tape when the cassette was loaded (indicated by "-H --M --S" when the Go-To button is pressed), the tape is first rewound to the beginning of the tape and then is fast-forwarded to the specified point.

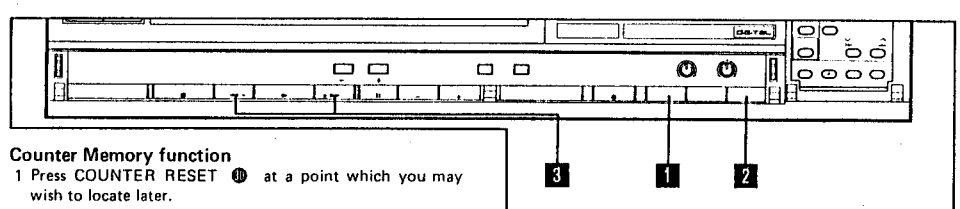
Time Search function

The Time Search function lets you locate a point on the tape a specified time span away from the current position in either direction.

1 Press GO-TO ㉙ while in the Play, Stop or Still mode.
2 Press TV PROG. "∨" or "∧" ㉗ to specify the direction of search.
3 Specify the time (from the current position) to the point to be located, by using the numeric keys ㉝ .
4 Press ▶/X2 or ■ .
- The tape will move to the specified point and automatically start playback or stop.

Notes:
- Each step in the operation procedure must be followed by the next within 60 seconds, otherwise the Go-To or Search mode will be cancelled.
- If the GO-TO button was pressed in the Play or Still mode, when the specified point is reached, a still picture will be displayed as a result of having pressed the ▮▮ button, instead of ▶/X2 or ■ , after having keyed in the time.
- Use of other control buttons, while in either the Time Go-To or Search mode, cancels that mode.
- If the specified time exceeds the tape length, the tape fast forwards to the end and then rewinds to the beginning and stops.

COUNTER MEMORY FUNCTION/LAP TIME INDICATION



Counter Memory function

1 Press COUNTER RESET ⑩ at a point which you may wish to locate later.
- The counter will read "0H 00M 00S".

2 Press COUNTER MEMORY ㉒ . M will appear in the FDP.

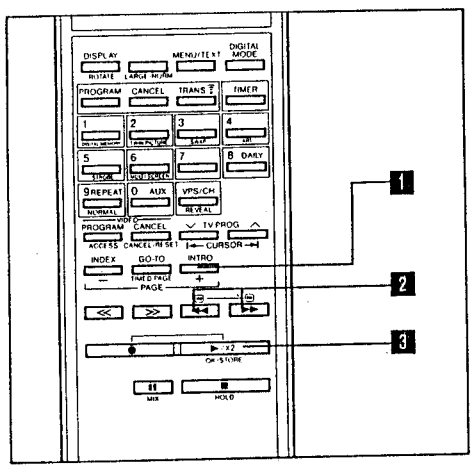
3 Press REW (or FF) ㉓ (or ㉕) when you need to return to the designated point.
The tape will rewind (or fast forward) and stop at about the "0H 00M 00S" counter reading automatically.

Lap Time Indication

When you need to know the exact time of a recording, press the COUNTER RESET button before starting recording or playback. The counter will be reset to "0H 00M 00S" and show the exact elapsed time as the tape runs.

INTRO SEARCH FUNCTION

The Intro Search function lets you visually check the contents of each recording by playing back in fast motion a short segment of a programme each time an index code is detected.



1 Press INTRO ⑩ while in the Play or Stop mode.
- The INDX indicator on the FDP will light.

2 Press ◀◀ or ▶▶ ⑫ within 2 seconds.
- The Intro Search will start in the corresponding direction.
- Each time an index code is detected, the corresponding part is played back in the Search mode (9 times normal) for about 5 seconds.

3 When you find the section you want to view, simply press ▶/X2 ⑪.
- Normal playback will start.

NEXT-FUNCTION MEMORY

Memory Play function

- If you want to watch the tape from its beginning after rewinding, press REW and then PLAY/X2 within 2 seconds. Playback will start automatically at the beginning of the tape. (The COUNTER MEMORY button ⑫ must be in the OFF position.)
- If you want to watch the tape from the counter reading of "00H 00M 00S", press COUNTER MEMORY, then REW (or FF) and then PLAY/X2 within 2 seconds.
- While the tape is being rewound, the PLAY/X2 indicator is blinking. To cancel the Memory Play mode and go to another mode, press the corresponding button (STOP, PLAY/X2, FF, REW).

Memory Eject/Power-Off/Timer Standby

If you are going to eject the cassette, turn the power off or engage the Timer Standby mode after rewinding the tape, you do not have to wait for completion of rewind to press the corresponding button.

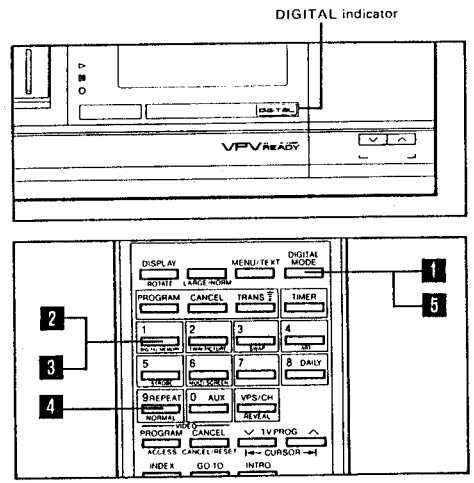
- To eject the cassette after rewind, press REW and then EJECT within 2 seconds. (To cancel the Memory Eject mode, press STOP.)
- To turn the power off after rewind, press REW and then OPERATE within 2 seconds. (To cancel the Memory Power-off mode, press OPERATE).
- To engage the Timer Standby mode after rewind, press REW and then TIMER within 2 seconds. (To cancel the Memory Timer Standby mode, press TIMER).

Memory Play	REW/FF	→ PLAY/X2	PLAY/X2	Blinking	→ Play mode
Memory Eject	REW	→ EJECT	⏏	Blinking	→ Cassette ejected
Memory Power-off	REW	→ OPERATE	OPERATE	Blinking	→ Power off
Memory Timer Standby	REW	→ TIMER	TIMER	Lights	→ Timer standby mode

within 2 seconds

DIGITAL FREEZE FUNCTION

The HR-D700E incorporates digital memory circuits to provide a variety of special effects while watching a recorded tape or a regular television broadcast.



Note:
To use the HR-D700E as a special-effects generator while watching television, set your TV receiver to the video channel; then, using the HR-D700E's built-in tuner, select the channel you wish to view with the TV PROG. buttons.

Digital Freeze:

A still picture stored in memory is continuously reproduced on the TV screen while the tape runs or a regular broadcast continues. The soundtrack is not affected.

1 While in the Play mode (or while viewing a television programme), press DIGITAL MODE ⑰.
- The "DIGITAL" indicator will light.

2 Press DIGITAL MEMORY ⑯.
- The picture is "frozen" on the screen at the instant of pressing.
- The soundtrack continues unaffected.

3 To switch to another still picture, press DIGITAL MEMORY again.

4 To restore normal pictures, press NORMAL ⑫.

5 To cancel the Digital mode, press DIGITAL MODE.

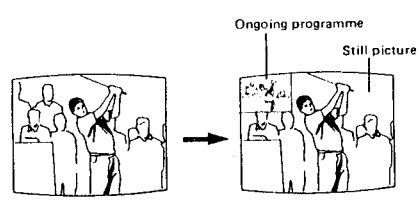
MULTI-SCREEN DIGITAL FREEZE FUNCTION

Multi-Screen Digital Freeze:

Selected still pictures are displayed on a 9-frame split screen.

1 While in the Play mode (or while viewing a television programme, press DIGITAL MODE ⑰.
- The "DIGITAL" indicator will light.

2 Press MULTI SCREEN ⑮ to select the 9-Frame Multi-Screen mode.
- The picture will be frozen and the ongoing programme will continue in a sub-screen appearing in the upper left corner.



3 Each time DIGITAL MEMORY ⑯ is pressed, still pictures will fill the subsequent sub-screens.
- When the last sub-screen is frozen by pressing DIGITAL MEMORY, the programme will continue in the first sub-screen and another cycle of selecting still pictures for each of the sub-screens can be performed.

4 To restore normal pictures, press NORMAL ⑫.

5 To cancel the Digital mode, press DIGITAL MODE.

Note:
- When AUX or TV signal is monochrome, it might happen in the Multi-Screen mode that the colours become slightly unstable. But this is not due to any defect of the unit.

ATTENTION
- Colours may be slightly unstable with playback of SECAM-G recordings in the Digital mode.
- While viewing a television programme (or while playing back a tape) in the Digital mode, colours may be slightly unstable if colour television signals other than PAL-system signals are received or played back.

DIGITAL STROBE FUNCTION

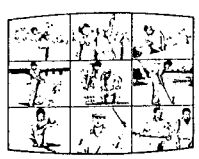
Digital Strobe:
A still picture selected at regular intervals from the tape or broadcast and stored in memory is continuously reproduced on the screen while the tape or broadcast continues with its soundtrack unaffected. The regular changing of the stored picture results in a strobe-light or time-lapse effect. Strobing at three different speeds can be selected.

1. While in the Play mode (or while viewing a television programme), press DIGITAL MODE ⓫ .
   - The "DIGITAL" indicator will light.
2. Press STROBE ⓮ to select the desired speed.
   - Strobing will start at the selected speed.
   - Each time STROBE is pressed, the speed becomes faster in three steps.
   - After the fastest speed is selected, a still picture is maintained as in the Digital Freeze mode.
3. To restore normal pictures, press NORMAL ⓬ .
4. To cancel the Digital mode, press DIGITAL MODE.

Note:
- It is also possible to perform strobing by first engaging the Digital Freeze mode and then selecting the speed.

MULTI-SCREEN DIGITAL STROBE FUNCTION

Multi-Screen Digital Strobe:
Still pictures are displayed on sub-screens successively at the selected strobe speed.



1. While in the Play mode (or while viewing a television programme), press DIGITAL MODE ⓫ .
   - The "DIGITAL" indicator will light.
2. Press MULTI SCREEN ⓭ to select the 9-Frame Multi Screen mode.
   - The picture will be frozen and the ongoing programme will continue in a sub-screen appearing in the upper left corner.
3. Press STROBE ⓮ to select the desired speed.
   - Strobing will start at the selected speed and the sub-screens will be filled with different still pictures automatically at a constant speed.
   - After all sub-screens have been filled with still pictures, the screen remains unchanged.
4. To restart strobing, press DIGITAL MEMORY ⓰ ; the pressing changes the picture on the first (upper left corner) sub-screen into a normal moving picture, and starts strobing.
5. To restore normal pictures, press NORMAL ⓬ .
6. To cancel the Digital mode, press DIGITAL MODE.

Note:
- When AUX or TV signal is monochrome, it might happen in the Multi-Screen mode that the colours become slightly unstable. But this is not due to any defect of the unit.

DIGITAL ART EFFECTS

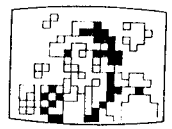
1. While in the Play mode (or while viewing a television programme), press DIGITAL MODE ⓫ .
   - The "DIGITAL" indicator will light.
2. Press ART ⓲ to select the desired art effects.
   - Each time the ART button is pressed, the mode changes in the order of Mosaic 1, 2, solarization 1, 2 Art off and then returns to Mosaic 1.
3. Press NORMAL ⓬ to restore normal pictures.
4. To cancel the Digital mode, press DIGITAL MODE.

Note:
- The Digital Art function can also be used in combination with the following functions:
  - Digital Freeze
  - Digital Strobe

Mosaic effects:
Reproduces the image with square patterns.
Two different patterns are available.

Mosaic 1
A pattern of smaller squares

Mosaic 2
A pattern of larger squares



Solarization effects:
Solarizes the colour of the image as with a paint-brush.

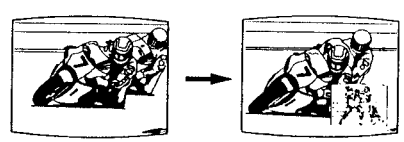
Solarization 1
Stronger solarization

Solarization 2
Weaker solarization

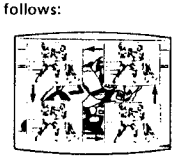
PICTURE-IN-PICTURE AND SWAP FUNCTIONS

Picture-In-Picture
During tape playback, a TV broadcast received by the VCR's built-in tuner is displayed in an inset window.

1. While in the Play mode, press DIGITAL MODE ⓫ .
   - The "DIGITAL" indicator will light.
2. Press TWIN PICTURE ⓱ to view picture-in-picture.
   - A sub-screen corresponding to the size of the 9-Screen mode will appear in the lower right corner and show a programme from the selected channel of the VCR's tuner.



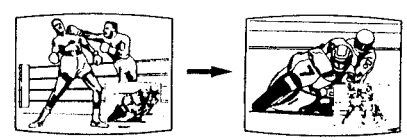
- Each pressing of TWIN PICTURE shifts the position of the window as follows:



- To view another programme in the window, select a different channel by using TV PROG. ∨ or ∧ .
- If an external source is selected, this can be displayed as well. (See page 22.)

Swap function:
The swap function allows the switching of pictures between the main screen and window.

3. To switch pictures between the main screen and window, press SWAP ⓳ .



4. To restore normal playback pictures, press NORMAL ⓬ .
5. To cancel Picture-in-Picture mode, press DIGITAL MODE.

Notes:
- With some televisions, the position of the window could be such that its edge exceeds the frame of the main screen.
- If the reception quality of the TV programme on the main screen is inferior, the picture in the window may not be normal.
- If the programme on the main screen is monochrome, the picture in the window may also be monochrome.

MULTI-SCREEN CHANNEL SCAN FUNCTION

Multi-Screen Channel Scan:

Broadcast programmes are displayed as still pictures on sub-screens as channel scanning proceeds.

1 While viewing a television programme, press DIGITAL MODE ⓫ .
- The "DIGITAL" indicator will light.

2 Press MULTI SCREEN ⓭ to select the 9-Frame Multi-Screen mode.
- The picture will be frozen and the ongoing programme will continue in a sub-screen appearing in the upper left corner.

3 With the TV programme displayed on the screen, press TV PROG. "∨" or "∧" ⓱ to scan channels; "∨" to scan channels lower than the currently tuned-in and "∧" to scan channels higher than the currently tuned-in.
- The sub-screens will be filled sequentially with still pictures of tuned-in channels.
- The last sub-screen displays a moving picture.

4 To restore normal pictures, press NORMAL ⓬ .

5 To cancel the Digital mode, press DIGITAL MODE.

Note:
- When AUX or TV signal is monochrome, it might happen in the Multi-Screen mode that the colours become slightly unstable. But this is not due to any defect of the unit.

MULTI-SCREEN INTRO SEARCH FUNCTION

Multi-Screen Intro Search:

Using the Multi Screen mode and the Index Search function, displays the still pictures located at detected index codes.

1 While in the Play mode, press DIGITAL MODE ⓫ .
- The "DIGITAL" indicator will light.

2 Press MULTI SCREEN ⓭ to select the 9-Frame Multi Screen mode.
- Always start Intro Search from the beginning of the tape.

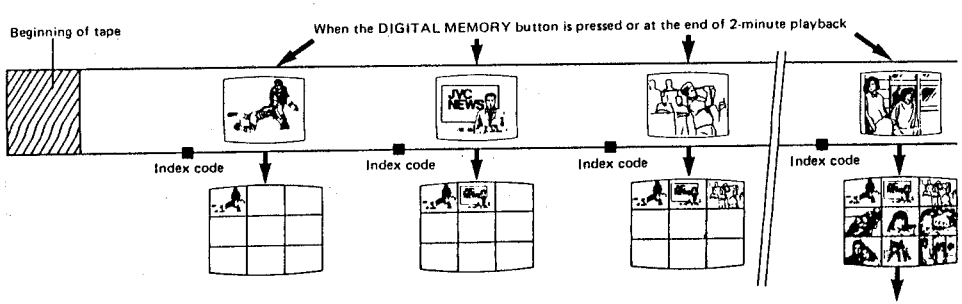
3 Press INTRO ⓮ .

4 Press ▶▶ ⓬ .
- When an index code is detected, playback starts automatically and continues for about 2 minutes.
- Intro Search in the reverse direction is not possible.

5 Press DIGITAL MEMORY ⓯ while playback continues.
- The picture coinciding with the pressing of the button is displayed on the upper left corner sub-screen.
- If DIGITAL MEMORY is not pressed, the last picture of the 2-minute playback remains displayed on the sub-screen as a still picture.
- Then the Fast-Forward mode is automatically engaged to detect the next index code.

6 When all sub-screens have been filled with still pictures the VCR enters the Stop mode automatically.
- When the end of the tape is reached in the Intro Search mode, the Auto Rewind mode is engaged.

Notes:
- To cancel the Intro Search mode midway, press NORMAL ⓬ or ■ ⓰ .
- Programmes between index codes less than 2 minutes away from each other will not be memorized automatically.



AUTOMATIC TIMER RECORDING

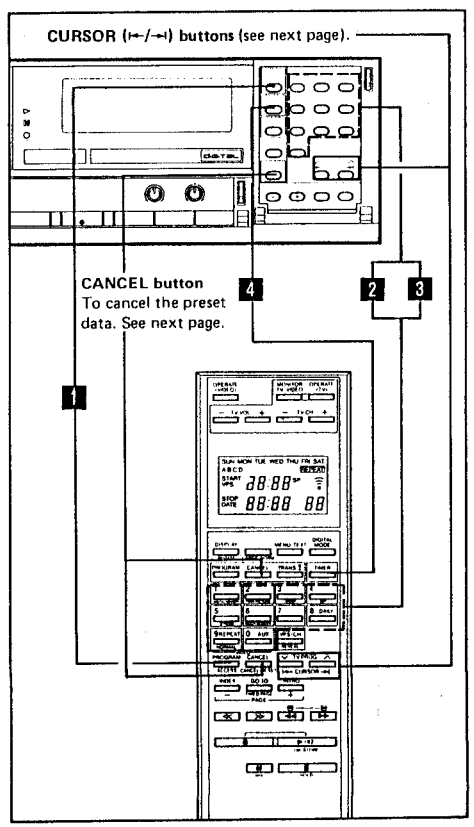
First of all, load a cassette (with safety tab in place); power will be switched on automatically.

Three ways to perform timer programming

A. Local programming: Programme the timer using the recorder's controls while referring to the recorder's FDP.

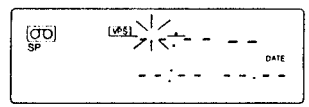
B. Direct remote programming: Programme the timer using the remote control's keys while referring to the recorder's FDP.

C. Independent remote programming: Programme the remote control's memory using the remote control's keys while referring to its own LCD and then transfer the data to the recorder.



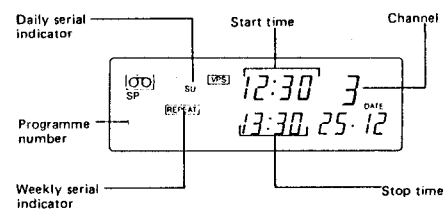
A. Local Programming

1 Press PROGRAM ⓾ .
- The display will change to the Timer Set mode for programme number "1". To advance to programme numbers 2 – 8, press PROGRAM.



2 Enter the start time using numeric keys ⓫ .
- Invalid numbers will be rejected.
- To key in a one-digit number of hours or minutes, first press "0". Then press the relevant numeric key.

3 When the display changes to the next stage, key in the stop time, date and channel in succession using numeric keys.
- To record a daily serial starting on the day of setting, press CURSOR "→" ⓬ without entering any date figure.
- To record a daily serial starting on a certain day, press DAILY (8) and enter the date.
- To record a weekly serial, press REPEAT (9) and enter the date.
- Both "daily" and "weekly" commands can be entered or cancelled by pressing the corresponding button any time in the date and time setting stages.
- For keying in channel numbers, refer to page 7.



- When not using the VPS recording system with the VPS adapter connected, press VPS to make "VPS" disappear.

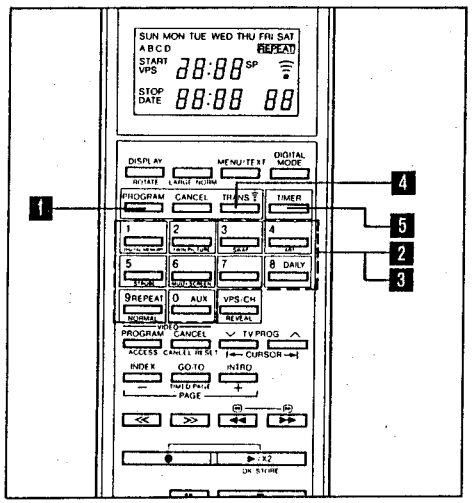
4 After making sure that the cassette is loaded, press TIMER ⓭ .
- The Timer Recording Standby mode will be engaged with the TIMER indicator and the preset programme number(s) illuminated and the power turned off.
- With no cassette loaded, the TIMER and "cassette loaded" indicators will continue blinking.
- A cassette whose safety tab has been removed will be rejected automatically.
- If a preset programme contains errors, that programme number will not be illuminated. Recheck the programmed data.

B. Direct Remote Programming

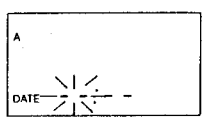
Following the procedures above, use the remote control's buttons instead of the recorder's with the remote control directed toward the recorder's REMOTE SENSOR window ❺.

C. Independent Remote Programming

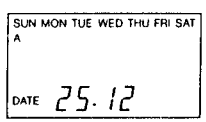
- The remote control incorporates 4 programme memories (A, B, C and D).
- The programmed data is held in memory even after it has been transferred to the recorder.



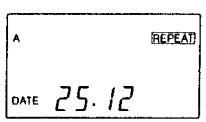
1 Press PROGRAM ⑫ .
- The LCD will be activated for programme memory "A".
- To advance to programmes B to D, press again.



2 Enter the date using numeric keys ⑤⑥ .
- Setting for a daily or weekly serial is the same as described in "A. Local Programming".

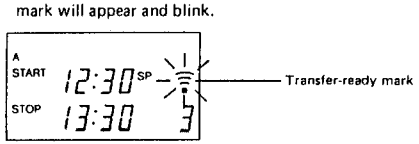


For daily serial setting



For weekly serial setting

3 When the display changes to the next stage, enter the start time, stop time and channel in succession.
- After the channel has been entered, the transfer-ready mark will appear and blink.



- When not using the VPS recording system with the VPS adapter connected, press VPS to make "VPS" disappear.
- If the VPS adapter is not connected, the VPS information is not memorized in the recorder even though the VPS indicator is visible on the LCD. Therefore, it is not necessary to turn it off.

4 Direct the remote control to the recorder's REMOTE SENSOR window ⑤ and press TRANS ⑮ .
- The programmed data will be loaded in one of the recorder's memories (1 – 8), the vacant one of the smallest programme number.
- If all programme memories are full, the recorder's clock will blink and transmission will not take place.

5 Press TIMER ⑪ .
- Check to see that the TIMER indicator and other items on the recorder's FDP respond correctly. See page 20.

Setting the start and stop times, date and channel

- It is not possible to set the date, start and stop times unless the date and clock have previously been set.
- Enter the data while the digits are blinking.
- Unless the start time has been properly set, stop time setting is not possible.
- The stop time can be set within 24 hours from the start time.
- Non-applicable numbers (such as January 32, February 30 for dates, 24 or larger for hours, 60 or larger for minutes and 49 or larger for channels) will be rejected when keyed in.

Cancelling the preset data

- The preset programmes can be cancelled. First engage the Timer Set mode for the programme number you wish to cancel and then press the CANCEL button ⑮ or VIDEO CANCEL ⑯ . Or for the remote control's memory, press CANCEL ⑬ .
- Unless the VPS mode is engaged, an executed programme is automatically cleared.

Checking the programmed data

- Checking and re-programming can be performed anytime, even when the TIMER button has already been engaged.
- While recording is actually taking place according to one preset programme, all other preset programmes can be checked or re-programmed.
- To disengage the Timer Set mode, press the COUNTER DISPLAY button ⑨ (on the recorder) or the DISPLAY button ⑩ (on the remote contorl).

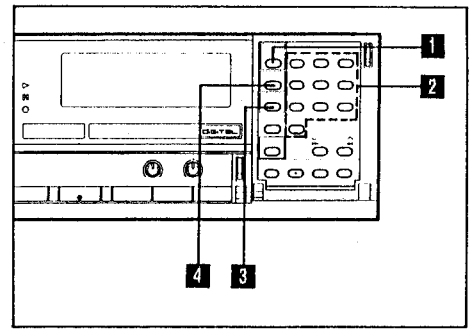
Timer recording operation

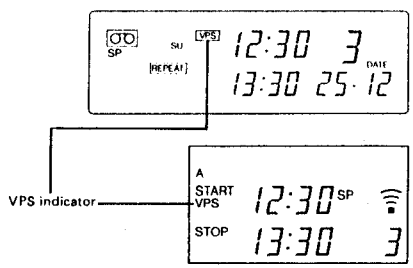
- When the preset start time is reached, recording starts.
- After timer recording, the power is switched off. If the tape end is reached during timer recording, the cassette is automatically ejected and the power is switched off.

How to use the CURSOR keys ⑫ ⑰
- If you press a wrong key and the flashing position has advanced, press "←" to return to the previous position for correction.
- Once all data have been programmed, you can reach any position for correction using "←" or "→". The flashing position is ready for re-entry.
- Pressing PROGRAM on the recorder or VIDEO PROGRAM on the remote control engages the FDP in the check mode in which no position flashes and data correction is not possible. Pressing PROGRAM on the remote control engages the LCD in the transfer-ready mode in which the transfer-ready mark is flashing and data correction is not possible. For correction of data, press either CURSOR key to move to the position which requires correction.

VPS RECORDING

VPS (Video Programme System) is a broadcast system employed by TV stations in certain areas. In this system, TV stations transmit different VPS codes for different TV programmes, which control the starting and stopping of the video recorder and have precedence over times preset in the timer for accurate recording of a particular programme from start to finish.





1 Press PROGRAM ⑩ (or ⑮) or, for the remote control's memory, ⑫ .

2 Set the start time, stop time, date and channel in the same way as for timer programming.

3 Make sure that the VPS indicator is lit; it not, press VPS ⑧ or ⑮ .
- All timer data will be converted to VPS codes and stored in memory.

4 Press TIMER ⑨ .
- The recorder will enter the VPS standby mode at 20:00 on the day previous to the preset day and remain engaged until 3:59 on the following day, if the intended programme has not yet been broadcast.
- When a VPS code corresponding to the intended TV programme is detected during the VPS standby mode, recording will start. When the VPS code changes to another, recording will stop.
- When an interruption code is detected during VPS recording the VPS standby mode is engaged and recording restarts when the regular VPS code is restored.

Notes:
- If no VPS code is detected from that station or a system status code which cancels VPS recording is detected, ordinary timer recording will be engaged.
- Operation at the end of VPS recording is the same as with ordinary timer recording.

RECORDING FROM AN EXTERNAL SOURCE

By connecting an external video source (such as a VideoMovie camera-recorder, 2nd video recorder, video camera, etc.) to the AUDIO/VIDEO socket, recording and/or editing are possible.
- For connection of these units, an appropriate cable is necessary.
- For connection of a video camera, a camera adapter is also necessary. Connect the camera adapter's PAUSE terminal to the recorder's PAUSE connector ㉑ , then you can control taping start/stop with the camera's start/stop switch. For proper connection of a camera, consult a JVC dealer.

1. Turn the power on for all connected equipment.
2. Adjust the TV receiver to your video channel.
3. Load a cassette.
4. Press either TV PROG. button ⑫ or the numeric key 0/AUX ⑪ to obtain "AU" in the channel display.
5. Operate the source equipment properly.
6. Press REC/ITR ㉒ .
   - When recording with a camera, press REC/ITR and PAUSE/STILL to enter the Recording Standby mode, then control taping start/stop with the camera's start/stop switch.
7. To stop recording temporarily, press PAUSE/STILL ㉗ .
8. To end recording, press STOP ㉓ .

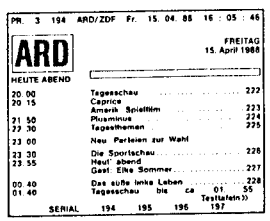
Note:
- For the operation of the source equipment, refer to the instruction manual of the relevant machine.

TELETEXT PROGRAMMING

Teletext services are becoming popular and a vast number of teletext pages are now available for a variety of information. The HR-D700E is ready to take advantage of these services, not only for simple viewing but also for programming the HR-D700E's built-in timer in an extremely easy way. All you need to do is connect the optional VU-V120E VPV adapter or VU-V100E VPS/VPV adapter to the rear of the HR-D700E. Then the HR-D700E's remote control exhibits its full capability with all the dual- or triple-function control keys working as intended.

TELETEXT

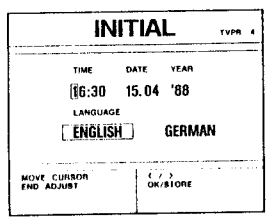
- View broadcast teletext pages.
- Several page access modes are available for quick and convenient viewing.
- Programme the timer using TV schedule pages.


PR. 3 194 ARD/ZDF Fr. 15. 04. 88 16 : 05 : 46
ARD
FREITAG
15. April 1988
HEUTE ABEND
20 00 Tagesschau 222
20 15 Caprice
Amerik. Spielfilm 223
21 50 Plusminus 224
22 30 Tagesthemen 225
23 00 Neu: Parteien zur Wahl
23 30 Die Sportschau 226
23 55 Heut' abend
Gast: Elke Sommer 227
00 40 Das gute, lange Leben 228
01 40 Tagesschau bis ca. 01 55
Testtafeln))
SERIAL 194 195 196 197

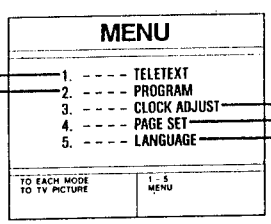
(A West German ARD teletext page is used as an example.)

CLOCK ADJUST

- Set the VCR's clock manually with 10-key input.

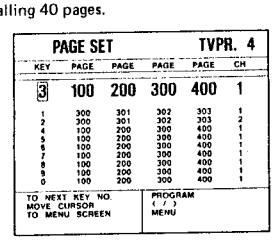


MENU



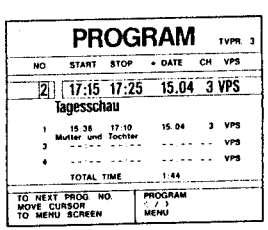
PAGE SET

- Preset teletext pages so that you can quickly access your favourite or frequently-referred-to pages.
- Four pages can be preset for each of the keys, 0 to 9, totalling 40 pages.



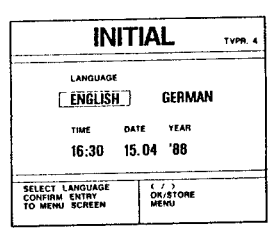
PROGRAM

- Check the timer recording data on the colour display.
- Programme the timer manually with 10-key input.



LANGUAGE

- Select either English or German for on-screen messages.



IN CASE OF DIFFICULTY

What may initially appear to be trouble is not always a real problem. Make sure first . . . .

Symptoms	Check points
No power is applied to the recorder.	• Is the power cord disconnected? Connect it.
Playback picture does not appear while the tape is running.	• Is the TV receiver's channel selector set to the correct video channel? Set to the RF converter channel.
Tape does not run in the Record mode.	• Is the PAUSE/STILL button pressed? Press PLAY/X2 to release.
REC/ITR button cannot be engaged.	• Is the cassette improperly loaded? Load it properly. • Is the safety tab broken? Reseal the slot.
Tape stops in the Rewind or Fast Forward mode.	• Is the COUNTER MEMORY switch set to that [M] appears on the FDP? Press to make [M] disappear.
Tape will not rewind.	• Is the tape already rewound to the end?
Noisy playback picture.	• Adjust with the TRACKING controls.
Pressing PAUSE/STILL during playback brings a still picture (in a frame-by-frame manner) with noise bars.	• Noise bars can be eliminated by pressing the PAUSE/STILL button a few more times.

This recorder contains microcomputers. External electronic noise or interference could cause malfunctioning. In such cases, switch the power off and unplug the power cord. Then plug it in again and check the functions.

HEAD CLEANING

- Picture playback may become blurred or interrupted while the TV programme received is clear. This does not mean that the recorded programme has been erased.
- Dirt accumulated on the video heads after long periods of use causes such problems. In this case, head cleaning requiring highly technical care is necessary.

For head cleaning, consult your JVC dealer.